

Applicant : Hao Yuan
Serial No. : 10/018,981
Filed : December 18, 2001
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Attorney's Docket No.: 13774-002001 / I01113/US

REMARKS

Applicant has cancelled claims 1-15 and added claims 16-21. Support for claims 16, 17, 18, 19, 20, and 21 can be found respectively in claims 4, 9, 11, 15, 10, and 6 as presented in the preliminary amendment. No new matter has been introduced by the amendment.

Claims 16-21 are now pending. Reconsideration of the application, as amended, is requested, in view of the remarks below. Claim 16, a subgenus of cancelled claim 4 and the only independent claim, will be discussed first.

I

Claim 16 reads: "A method of treating osteoporosis, angina of coronary heart disease, fracture, cerebral infarction, and ameliorating hemorheological index, comprising administering a subject in need thereof leaves of *Cajanus cajan* (L.) Millsp or an extract thereof." The Examiner rejected claim 1 under 35 U.S.C. 112, second paragraph, as being indefinite. Claim 16 does not recite the phrase "[a] kind of extract," which renders claim 1 indefinite.

II

The Examiner rejected claims 3-5, 7, 12, and 13 under 35 U.S.C. 102(b) as being anticipated by Liu et al., Chinese Pharmacist-Prepared Medicine, 1998, 20:3, 7-9 (Liu). Unlike claims 3, 5, 7, 12, and 13, claim 4 covers a method of treating, among others, all of the diseases recited in claim 16, i.e., osteoporosis, angina of coronary heart disease, fracture, cerebral infarction, and ameliorating hemorheological index. These diseases can be distinguished from those described in Liu. Indeed, the Examiner explicitly admitted that "[t]he [Liu] article [] does not disclose a method of treatment comprising the administration of leaves of *Cajanus cajan* (L.) Millsp or an extract thereof for ameliorating of hemorheological index...treating angina of coronary heart disease, treating fracture, treating cerebral infarction ... or treating osteoporosis." See the Office Action, page 4, second paragraph. Thus, claim 16 is not anticipated by Liu.

III

Claims 1-15 are rejected under 35 U.S.C. 103(a) as obvious over Liu in view of Yuan, Chinese Patent Document No. CN 1174052 (Yuan). More specifically, the Examiner pointed out that Liu and Yuan teach that the leaves or the extract of *Cajanus cajan* (L.) Millsp are effective in treating ischemic necrosis of the femoral head, injury, burn infection, sores, and jaundice, and possessing anti-septic and anti-inflammation properties. See the Office Action, page 4, first and

third paragraphs. On the other hand, claim 16, a narrowed version of claim 4, covers a method of treating angina of coronary heart disease, cerebral infarction, osteoporosis, fracture, and ameliorating hemorheological index, which are not suggested by Liu and Yuan.

Indeed, the diseases recited in claim 16 are not related to those discussed by Liu and Yuan. Coronary heart disease, cerebral infarction, and ameliorating hemorheological index, all recited in claim 16, are diseases of body organs different from those mentioned in Liu and Yuan, i.e., bone disease, injury, sores, jaundice, sepsis, and inflammation. Even though osteoporosis and fracture (recited in claim 16) and ischemic necrosis of the femoral head (discussed in Liu and Yuan) are all bone diseases, osteoporosis and fracture have different causes and pathological mechanisms from ischemic necrosis of the femoral head. Osteoporosis is characterized by reduction of bone mass, i.e., osteopenia, and its causes usually include abnormality of hormone regulations, nutrient factors, physiological factors, and genetic factors. See Ma, S., Pathology of Osteoporosis (Section Two) in Liu, Z., Osteoporosis Study, 1998, Science Press, Beijing, China, page 182. A copy of the relevant pages from this Chinese article, as well as a translation of the circled passage, is attached hereto as "Exhibition A."¹ Fracture is characterized by break of a bone structure usually caused by an external force. Ischemic necrosis of the femoral head, on the other hand, is characterized by death of bone cells due to failure of blood supply to the femoral head (neither by reduction of bone mass as in osteoporosis, nor by damage to a bone structure as in fracture). Thus, one of ordinary skill in the art would not have been motivated by the teachings in Liu and Yuan to treat osteoporosis and fracture, both recited in claim 16, with the leaves or the extract of *Cajanus cajan (L.) Millsp.*

For the above reasons, claim 16 is not rendered obvious by Liu and Yuan.

IV

Claims 17-21, dependent from claim 16, are also not indefinite, not anticipated by Liu, and not rendered obvious by a combination of Liu and Yuan in view of the remarks set forth in Parts I, II, and III above, respectively.

¹ Applicant's counsel is proficient in both English and Chinese and verifies that the translation is complete and accurate.

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CONCLUSION

For the reasons presented above, all amended claims are now in condition for allowance, an action of which is requested. Enclosed is a check for the Petition for Extension of Time fee. Please apply any other charges to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 1-8 -03

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Version with markings to show changes made

In the claims:

Claims 16-21 have been added as follows:

16. A method of treating osteoporosis, angina of coronary heart disease, fracture, cerebral infarction, and ameliorating hemorheological index, comprising administering a subject in need thereof leaves of *Cajanus cajan (L.) Millsp* or an extract thereof.
17. The method of claim 1, wherein the leaves or the extract is for treating angina of coronary heart disease.
18. The method of claim 1, wherein the leaves or the extract is for treating cerebral infarction.
19. The method of claim 1, wherein the leaves or the extract is for treating osteoporosis.
20. The method of claim 1, wherein the leaves or the extract is for treating fracture.
21. The method of claim 1, wherein the leaves or the extract is for ameliorating hemorheological index.